

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-18 (Canceled)

Claim 19 (Currently amended): An electronic assembly comprising:

a substrate having a plurality of conductive signal lines formed adjacent the substrate;
a plurality of ~~free-standing~~ resilient electronic interconnection elements coupled to the signal lines, each interconnection element comprising:
a first structure of a first material having a first spring constant, ~~the first structure capable of being free-standing by itself, the first spring constant high enough for repeated elastic displacement without substantial plastic deformation~~ and forming a micro-sized spring, and
a second structure of a ~~lithographically patterned~~ different second material deposited within an opening through a masking material applied on the first structure after a portion of the first structure has been released from a substrate and formed into the micro-sized spring, and coupled to the first material, wherein ~~such that~~ the first material and the second material together have a second spring constant greater than the first spring constant.

Claim 20 (Original): The electronic assembly of claim 19, wherein the shape of each of the plurality of interconnection elements comprises an anchor portion adapted to be coupled to the substrate and a free portion.

Claim 21 (Currently amended): The electronic assembly of claim 20, wherein ~~a portion of each of the free-standing portions of each of the plurality of interconnection elements~~ said free portion comprises a contact tip portion, wherein each said interconnection element further comprises:
an insulating material overlying a portion of the ~~free-standing~~ free portion and a conductive material overlying the insulating material and electrically coupled to ~~the electronic component~~ one of said conductive signal lines.

Claim 22 (Currently amended): An electronic assembly including a plurality of the interconnection elements, the assembly comprising:

a substrate,

a plurality of signal lines associated with the substrate,

a plurality of the interconnection elements, each interconnection element comprising:

a first structure of a first material having a first spring constant, ~~the first structure capable of being free-standing by itself, the first spring constant high enough for repeated elastic displacement without substantial plastic deformation and forming a micro-sized spring,~~ and

a second structure of a different second material deposited within an opening through a masking material applied on the first structure after a portion of the first structure has been released from a substrate and formed into the micro-sized spring, and coupled to the first material, wherein by lithographic techniques such that the first material and the second material together have a second spring constant greater than the first spring constant, with selected ones of the plurality of interconnection elements electrically connected to selected ones of the plurality of signal lines.

Claim 23 (Currently amended): An electronic system comprising:

a first electronic component comprising:

a substrate,

a plurality of signal lines associated with the substrate,

a plurality of ~~[[the]]~~ interconnection elements, each interconnection element comprising:

a first structure of a first material having a first spring constant, ~~the first structure capable of being free-standing by itself, the first spring constant high enough for repeated elastic displacement without substantial plastic deformation~~ and forming a micro-sized spring, and

a second structure of a different second material deposited within an opening through a masking material applied on the first structure after a portion of the first structure has been released from a substrate and formed into the micro-sized spring, and coupled to the first material, wherein ~~by lithographic techniques such that~~ the first material and the second material together have a second spring constant greater than the first spring constant, with selected ones of the plurality of interconnection elements electrically connected to selected ones of the plurality of signal lines; and

a second electronic component connected to the first electronic component.

Claim 24 (Currently amended): A method of making electrical contact between ~~two components~~ said electronic assembly of claim 19 and an electronic component, said method comprising:

~~coupling a first component having one or more of the interconnection elements of claim 1~~ formed on a surface thereof to said resilient electronic interconnection elements of said electronic assembly to contact pads of a second said electronic component to establish [[a]] ~~conductive [[path]] paths between the first component and the second component~~ said electronic assembly and said electronic component.

Claim 25 (Original): The method of claim 24, wherein the coupling is one of a temporary connection and a permanent connection.

Claim 26 (Currently amended): The method of claim 25, wherein the coupling comprises:

aligning ~~the first component and the second component~~ said electronic assembly and said electronic component such that ~~[[the]]~~ one or more of the interconnection ~~element is~~ elements are elastically displaced.

Claims 27-32 (Canceled)

Claim 33 (New): The electronic system of claim 23, wherein said masking material is a electrophoretic resist.

Claim 34 (New): The electronic system of claim 23, wherein, the first structure is capable of being free-standing by itself.

Claim 35 (New): The electronic system of claim 23, wherein said first spring constant is sufficient for repeated elastic displacement of said first structure without substantial plastic deformation of said first structure.

Claim 36 (New): The electronic assembly of claim 22, wherein said masking material is a electrophoretic resist.

Claim 37 (New): The electronic assembly of claim 22, wherein, the first structure is capable of being free-standing by itself.

Claim 38 (New): The electronic assembly of claim 22, wherein said first spring constant is sufficient for repeated elastic displacement of said first structure without substantial plastic deformation of said first structure.

Claim 39 (New): The electronic assembly of claim 19, wherein said masking material is a electrophoretic resist.

Claim 40 (New): The electronic assembly of claim 19, wherein, the first structure is capable of being free-standing by itself.

Claim 41 (New): The electronic assembly of claim 19, wherein said first spring constant is sufficient for repeated elastic displacement of said first structure without substantial plastic deformation of said first structure.